

May 20, 2019

Ms. Patricia McGowan
Environmental Coordinator
Planning and Building Department
City of Oakland
250 Frank H. Ogawa Plaza, Suite 3315
Oakland, California 94612

Dear Ms. McGowan:

Thank you for providing California Air Resources Board (CARB) staff the opportunity to comment on the Air Quality Plan (Plan) for operations of the Good Eggs Fulfillment Center (Project) located within the City of Oakland (City). The Project consists of the operation of a 116,246 square foot warehouse facility located within an area designated as CE-2 in the former Oakland Army Base (OAB). The Plan is required as part of the 2013 approved Standard Conditions of Approval/Mitigation Monitoring and Reporting Program (SCA/MMRP) prepared for the 2012 OAB Redevelopment Initial Study Addendum (IS/Addendum). The SCA/MMRP was adopted by the City to mitigate the significant health and air quality impacts in the West Oakland community, and the impacts to regional air quality resulting from the redevelopment of the former OAB.

Prologis is the lessee of a 232,785 square foot warehouse located within CE-2 of the OAB. Prologis plans to lease half of the warehouse (116,246 square feet) to Good Eggs, Inc. (Good Eggs). The tenant of the second half of the warehouse has not yet been determined. Good Eggs plans to use the warehouse as a distribution hub for its online grocery delivery service. According to the Plan, all outbound trips (i.e., grocery deliveries) will use gas-powered box trucks, vans, and cars. Inbound trips (i.e., produce deliveries from local farms) will use diesel-powered semi-trucks and gas-powered box trucks, vans, and cars. At full capacity, the Project would result in 240 average daily outbound trips and 146 average daily inbound trips. Of the average daily inbound trips, 44 will be from trucks equipped with transport refrigeration units (TRUs).¹

The nearest residences within the West Oakland community are located approximately 1,570 feet east of the Project's easternmost boundary. In addition to residences, the Saint Patrick School, Oakland Freedom School, Vincent Academy, and McClymonds High School are located within one mile from the Project site. The residences within the West Oakland community are surrounded by existing toxic diesel particulate matter

¹ Transport refrigeration units (TRU) are refrigeration systems powered by integral diesel engines that protect perishable goods during transport in insulated truck and trailer vans, rail cars, and domestic shipping containers.

(PM) emissions sources including industrial uses, rail traffic along the Union Pacific rail line, and vehicular traffic along Interstate 880 (I-880) and Interstate 580 (I-580). According to a health risk assessment (HRA) prepared by CARB staff in 2008, residences in the West Oakland community were exposed to air concentrations of diesel PM that were substantially higher than average background levels in the Bay Area.² Due to the Project's proximity to residences and schools already disproportionately burdened by multiple sources of diesel PM, CARB staff is concerned with the potential cumulative health impacts associated with the combined operation of the Project and existing and future projects within the OAB.

The State of California has placed additional emphasis on protecting local communities from the harmful effects of air pollution through the passage of Assembly Bill 617 (AB 617) (Garcia, Chapter 136, Statutes of 2017). AB 617 is a significant piece of air quality legislation that highlights the need for further emission reductions in disadvantaged communities with high exposure burdens, like West Oakland where the Project is located. The California Environmental Protection Agency (CalEPA) currently defines a disadvantaged community, from an environmental hazard and socioeconomic standpoint, as a community that scores within the top 25 percent of the census tracts, as analyzed by the California Communities Environmental Health Screening Tool Version 3.0 (CalEnviroScreen). CalEnviroScreen uses a screening methodology to help identify California communities currently disproportionately burdened by multiple sources of pollution. The census tract containing the Project is within the top 11 percent for Pollution Burden.³ Diesel PM generated during the operation of the Project would negatively impact the West Oakland community, which is already severely disproportionally impacted by air pollution from existing freight facilities. CARB urges the City to ensure that the Project does not add to the existing burden or erode the anticipated benefits of regulatory requirements.

CARB staff is encouraged that the operation of the proposed warehouse to be occupied by Good Eggs will include emission reduction measures and strategies such as electric plug-ins at all loading docks, CO₂ refrigeration, rooftop solar, and LEED Gold certification. However, more must be done. The City, Prologis, and Good Eggs have a unique opportunity to set a national standard of how zero-emission technologies could be used to substantially reduce or eliminate diesel PM, nitrogen oxides (NO_x), and greenhouse gases emitted from the Project site. The City has an obligation to protect its residents, and the customers of Good Eggs should know the fresh produce and other products delivered to them did not burden the surrounding community. To achieve this standard, CARB strongly encourages the City, Prologis, and Good Eggs to use the

² Bay Area Air Quality Management District (BAAQMD), 2014. Improving Air Quality & Health in Bay Area Communities. April 2014. Accessed at: <http://www.baaqmd.gov/community-health/community-health-protection-program/community-air-risk-evaluation-care-program/documents>

³ Pollution Burden represents the potential exposures to pollutants and the adverse environmental conditions caused by pollution.

cleanest commercially-available technology now, and throughout the Project's operation. This important goal may be met by implementing the actions found in Attachment A of this comment letter.

If Prologis and Good Eggs elect not to commit to the implementation of all actions listed in Attachment A, the City should require Prologis and Good Eggs to prepare a HRA. The HRA should evaluate the Project's contribution to the health risk impact of the portion of the 2012 OAB Redevelopment controlled by the City. To do this, the HRA should evaluate health risk impacts under three scenarios: (1) an existing 2012 baseline, (2) future full build-out year baseline where none of the diesel PM reduction measures proposed within the Plan are implemented, and (3) future full build-out year where all of the diesel PM reduction measures proposed within the Plan are implemented. The health risks modeled under both the existing and the future baselines should reflect all applicable federal, state, and local rules and regulations. The results of the HRA should be reported in the Plan and made available for public review.

The HRA should report diesel PM concentrations, and cancer and noncancer risks to residences located within West Oakland and adjacent affected communities. The modeling presented in the HRA should be based on the latest Office of Environmental Health Hazard Assessment (OEHHA) guidance (2015 Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments).⁴

CARB staff have reviewed the Plan for the Project (dated April 23, 2019) and air quality technical memo (dated February 26, 2019) and have the following comments:

1. The Plan states that the City will determine whether stakeholders should be notified if an amendment or exception to this Plan is requested or determined to be necessary. In addition, the Plan states that the City will determine whether a different Plan or an addendum to this Plan may be required upon the termination of the Good Eggs lease. CARB staff urges the City to coordinate with all air quality stakeholders, including CARB and BAAQMD, to determine if a change in the tenant lease or Project operations would require a revised Plan for the Project.
2. The Plan commits Good Eggs to implement a Technology Review Program. As part of this program, Good Eggs will identify the cleanest commercially-available technologies every three years. If the identified technologies are found to be practical and economically feasible, Good Eggs will implement the technologies within a 12-month period. Given the advancement in technology, the City should

⁴ Office of Environmental Health Hazard Assessment (OEHHA). Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments. February 2015. Accessed at: <https://oehha.ca.gov/media/downloads/cmr/2015guidancemanual.pdf>

require that these technology reviews occur every two years and be submitted to the City for evaluation and approval, in consultation with BAAQMD and CARB.

3. The IS/Addendum did not compare the 2012 OAB Redevelopment Project operational emissions to the BAAQMD's daily significance thresholds for reactive organic gas (ROG), NO_x, and particulate matter (including PM₁₀ and PM_{2.5}). Since the IS/Addendum did not compare the 2012 OAB Redevelopment Project's operational emissions to all of the BAAQMD's operational significance thresholds, it cannot be assumed that the 2012 OAB Redevelopment Project would not result in a significant impact for these criteria pollutants. For this reason, the Plan should be updated to report operational emissions for ROG, NO_x, and particulate matter and compare them to the latest daily and annual significance thresholds found in BAAQMD's CEQA Guidance.
4. The Plan should include emission rates of diesel PM under two scenarios: (1) future full build-out year of the portion of the 2012 OAB Redevelopment Project controlled by the City where none of the diesel PM reduction measures proposed within the Plan are implemented and (2) future full build-out year of the 2012 OAB Redevelopment Project controlled by the City where all of the diesel PM reduction measures proposed within the Plan are implemented. Conservative assumptions should be made for truck trip rates and TRU engine runtime when information is unavailable. By reporting the diesel PM emission rates during the operation of the entire increase in OAB development, the public will have a complete understanding of the expected diesel PM that would result from the project despite the implementation of all measures found in the Plan.
5. According to the Plan, approximately 44 inbound trucks will be equipped with TRUs. However, modeling in support of the Plan did not account for diesel exhaust and idling emissions from the operation of TRUs. CARB staff is concerned that TRUs operating within the Project site and traveling along local roadways in the West Oakland community could result in exposure to diesel exhaust emissions that would result in a significant cancer risk. The air emissions modeling for the Project should be revised to account for emissions emitted by trucks with TRUs.
6. The Plan used CalEEMod's 7.3-mile default trip distance for a cold storage warehouse to model the Project's mobile emissions. According to the Plan, inbound deliveries of fresh produce will originate from local farms. The closest farm to the Project site is located in Solano County, approximately 30 linear miles northeast of the Project site. Since the inbound deliveries of produce will be further than 7.3 miles, the air pollutant emissions reported in the Plan should be remodeled using Project-specific trip distances.

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CARB staff urges the City to extend the 17-day review and comment period for this and future air quality plans within the OAB to at least 45 days. An extension of the review and comment period will allow stakeholders and members of the community more time to review the Plans submitted by the City. CARB staff appreciates the opportunity to comment on the Plan for the Project and can provide assistance on zero-emission technologies and emission reduction strategies, as needed. If you have questions, please contact Stanley Armstrong, Air Pollution Specialist, at (916) 440-8242 or via email at stanley.armstrong@arb.ca.gov.

Sincerely,



Richard Boyd, Chief
Risk Reduction Branch
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Attachment

cc: See next page.

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ATTACHMENT A

Recommended Air Pollution Emission Reduction Measures for Warehouses and Distribution Centers

California Air Resources Board (CARB) staff recommends developers and government planners use all existing and emerging zero to near-zero emission technologies during project construction and operation to minimize public exposure to air pollution. Below are some measures, currently recommend by CARB staff, specific to warehouse and distribution center projects. These recommendations are subject to change as new zero-emission technologies become available.

Recommended Construction Measures

1. Ensure the cleanest possible construction practices and equipment are used. This includes eliminating the idling of diesel-powered equipment and providing the necessary infrastructure (e.g., electrical hookups) to support zero and near-zero equipment and tools.
2. Implement, and plan accordingly for, the necessary infrastructure to support the zero and near-zero emission technology vehicles and equipment that will be operating onsite. Necessary infrastructure may include the physical (e.g., needed footprint), energy, and fueling infrastructure for construction equipment, onsite vehicles and equipment, and medium-heavy and heavy-heavy duty trucks.
3. In construction contracts, include language that requires all off-road diesel-powered equipment used during construction to be equipped with Tier 4 or cleaner engines, except for specialized construction equipment in which Tier 4 engines are not available. In place of Tier 4 engines, off-road equipment can incorporate retrofits such that emission reductions achieved equal or exceed that of a Tier 4 engine.
4. In construction contracts, include language that requires all off-road equipment with a power rating below 19 kilowatts (e.g., plate compactors, pressure washers,) used during project construction be battery powered.
5. In construction contracts, include language that requires all heavy-duty trucks entering the construction site, during the grading and building construction phases be model year 2014 or later. All heavy-duty haul trucks should also meet CARB's lowest optional low-NO_x standard starting in the year 2022.¹

¹ In 2013, CARB adopted optional low-NO_x emission standards for on-road heavy-duty engines. CARB staff encourages engine manufacturers to introduce new technologies to reduce NO_x emissions below the current mandatory on-road heavy-duty diesel engine emission standards for model years 2010 and later. CARB's optional low-NO_x emission standard is available at <https://www.arb.ca.gov/msprog/onroad/optionnox/optionnox.htm>.

6. In construction contracts, include language that requires all construction equipment and fleets to be in compliance with all current air quality regulations. CARB staff is available to assist in implementing this recommendation.

Recommended Operation Measures

1. Include contractual language in tenant lease agreements that requires tenants to use the cleanest technologies available, and to provide the necessary infrastructure to support zero-emission vehicles and equipment that will be operating onsite.
2. Include contractual language in tenant lease agreements that requires all loading/unloading docks and trailer spaces be equipped with electrical hookups for trucks with transport refrigeration units (TRU) or auxiliary power units. This requirement will eliminate the amount of time that a TRU powered by a fossil-fueled internal combustion engine can operate at the project site. Use of zero-emission all-electric plug-in TRUs, hydrogen fuel cell transport refrigeration and cryogenic transport refrigeration are encouraged and can also be included lease agreements.²
3. Include contractual language in tenant lease agreements that requires all TRUs entering the project site be plug-in capable.
4. Include contractual language in tenant lease agreements that requires future tenants to exclusively use zero-emission light- and medium-duty delivery trucks and vans.
5. Include contractual language in tenant lease agreements requiring all TRUs, trucks, and cars entering the Project site be zero emission.
6. Include contractual language in tenant lease agreements that requires all service equipment (e.g., yard hostlers, yard equipment, forklifts, and pallet jacks) used within the project site to be zero emission. This equipment is widely available.
7. Include contractual language in tenant lease agreements that requires all heavy-duty trucks entering or on the project site to be model year 2014 or later today, expedite a transition to zero-emission vehicles, and be fully zero-emission beginning in 2030.
8. Include contractual language in tenant lease agreements that requires the tenant be in, and monitor compliance with, all current air quality regulations for on-road trucks including CARB's Heavy-Duty (Tractor-Trailer) Greenhouse Gas

² CARB's Technology Assessment for Transport Refrigerators provides information on the current and projected development of TRUs, including current and anticipated costs. The assessment is available at https://www.arb.ca.gov/msprog/tech/techreport/tru_07292015.pdf.

Regulation,³ Periodic Smoke Inspection Program (PSIP),⁴ and the Statewide Truck and Bus Regulation.⁵

9. Include contractual language in tenant lease agreements restricting trucks and support equipment from idling longer than five minutes while onsite.
10. Include contractual language in tenant lease agreements that limits onsite TRU diesel engine runtime to no longer than 15 minutes. If no cold storage operations are planned, include contractual language and permit conditions that prohibit cold storage operations unless a health risk assessment is conducted and the health impacts fully mitigated.
11. Include rooftop solar panels for each proposed warehouse to the extent feasible, with a capacity that matches the maximum allowed for distributed solar connections to the grid.

³ In December 2008, CARB adopted a regulation to reduce greenhouse gas emissions by improving the fuel efficiency of heavy-duty tractors that pull 53-foot or longer box-type trailers. The regulation applies primarily to owners of 53-foot or longer box-type trailers, including both dry-van and refrigerated-van trailers, and owners of the heavy-duty tractors that pull them on California highways. CARB's Heavy-Duty (Tractor-Trailer) Greenhouse Gas Regulation is available at <https://www.arb.ca.gov/cc/hdghg/hdghg.htm>.

⁴ The PSIP program requires that diesel and bus fleet owners conduct annual smoke opacity inspections of their vehicles and repair those with excessive smoke emissions to ensure compliance. CARB's PSIP program is available at <https://www.arb.ca.gov/enf/hdvp/hdvp.htm>.

⁵ The regulation requires newer heavier trucks and buses must meet PM filter requirements beginning January 1, 2012. Lighter and older heavier trucks replaced starting January 1, 2015. By January 1, 2023, nearly all trucks and buses will need to have 2010 model year engines or equivalent. CARB's Statewide Truck and Bus Regulation is available at <https://www.arb.ca.gov/msprog/onrdiesel/onrdiesel.htm>.